



Department of Toxic Substances Control



Winston H. Hickox
Agency Secretary
California Environmental
Protection Agency

Edwin F. Lowry, Director
8800 Cal Center Drive
Sacramento, California 95826-3200

Gray Davis
Governor

September 12, 2002

Mr. Arthur J. Lenox
Environmental Remediation
Rocketdyne Propulsion & Power
6633 Canoga Avenue
Post Office Box 7922
Canoga Park, California 91309-7922

APPROVAL FOR HAPPY VALLEY AREA OF CONCERN (AOC), SUBSURFACE
CLEARANCE, GEOPHYSICAL MAPPING, AND DEBRIS REMOVAL REPORT
(JUNE 2002), SANTA SUSANA FIELD LABORATORY, VENTURA COUNTY,
CALIFORNIA

Dear Mr. Lenox:

The Department of Toxic Substances Control (DTSC) has reviewed the report prepared by UXB International, Inc. for the Happy Valley ordnance investigation conducted as an Interim Measure (IM) in accordance with the Happy Valley AOC, Subsurface Clearance, Geophysical Mapping, and Debris Removal work plan approved by DTSC in January 1999.

The Happy Valley ordnance investigation was conducted following the discovery of suspect unexploded ordnance in the Happy Valley AOC during a comprehensive Resource Conservation and Recovery Act Facility Investigation in 1998. Following the discovery, the site was cleared of the potential ordnance hazards as an IM.

Based on our review, DTSC has determined that the report is complete and approves the recommendations and deed notification requirements stipulated in Section 6.3 of the report. Please initiate the deed notification process within 6 months of the date of this letter.

*The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption.
For a list of simple ways you can reduce demand and cut your energy costs, see our Web-site at www.dtsc.ca.gov.*

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Mr. Arthur J. Lenox
September 12, 2002
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If you have any questions, please do not hesitate to contact Mr. Gerard Abrams,
Hazardous Substances Engineering Geologist, of my staff, at (916) 255-3600

Sincerely,



James M. Pappas, P.E.
Chief
Land Disposal Branch
Hazardous Waste Management Program

cc: Mr. Jim Austreng, P.E.
State Unexploded Ordnance Coordinator
Office of Military Facilities
Department of Toxic Substances Control
8800 Cal Center Drive
Sacramento, California 95826

Mr. Stephen Baxter
Department of Toxic Substances Control
1011 N. Grandview Avenue
Glendale, California 91201-2205

Mr. Gerard Abrams
Department of Toxic Substances Control
8800 Cal Center Drive
Sacramento, California 95826

Mr. Dan Hirsch
Committee to Bridge the Gap
#2 - 1185 E. Cliff Drive
Santa Cruz, California 95062

October 4, 2002
In response refer to 2002RC3636

Mr. Peter Bozek
Local Enforcement Agency
Ventura County Environmental Health Division
800 South Victoria Avenue
Ventura, CA 93009-1730



Subject: Area I Landfill
Santa Susana Field Laboratory (SSFL)
Ventura County, California

Dear Mr. Bozek:

Per our discussion during the September 30, 2002 site visit, The Boeing Company (Boeing), will proceed with filling the surface depressions at the SSFL Area I Landfill with on-site borrow soil. This is an interim corrective action to minimize rainwater from entering the landfill until the Resource Conservation Recovery Act Field Investigation commences at the landfill. The cause and the full extent of the depressions will be fully studied during the RCRA field investigation. The investigation is tentatively scheduled to begin following the rainy season and upon DTSC workplan approval.

In addition, pursuant to your request, Boeing will undertake measures to prevent rainwater from entering the storm drain inlet located south east of the landfill.

If you have any questions, I may be reached at (818) 586-4347.

Sincerely,

A handwritten signature in black ink, appearing to read "David Chung".

David H. Chung, P.E.
Environmental Remediation

DHC:bjc

cc: P. Bailey, DTSC
(SHEA-096244)





Department of Toxic Substances Control



Winston H. Hickox
Agency Secretary
California Environmental
Protection Agency

Edwin F. Lowry, Director
8800 Cal Center Drive
Sacramento, California 95826-3200

Gray Davis
Governor

May 21, 2003

Mr. Steve Lafflam
The Boeing Company
Rocketdyne Propulsion & Power
6633 Canoga Avenue
P.O. Box 7922
Canoga Park, California 91309-7922

SUBMITTAL OF AN INTERIM MEASURES WORKPLAN TO ADDRESS ONGOING PERCHLORATE RELEASE TO SURFACE WATER FROM BUILDING 359 AND HAPPY VALLEY AREAS AT THE SANTA SUSANA FIELD LABORATORY (SSFL), VENTURA COUNTY

Dear Mr. Lafflam:

The purpose of this letter is to request submittal of an interim measures workplan describing immediate and long-term measures to be taken at the Building 359 and Happy Valley areas to control perchlorate release to surface water. The Department of Toxic Substances Control (DTSC) and the Los Angeles Regional Water Quality Control Board (Regional Board) staff have been coordinating regulatory efforts at the site to eliminate duplication of efforts and to ensure protection of water quality.

Surface water samples, collected as part of monitoring required under Boeing's SSFL National Pollutant Discharge Elimination System (NPDES) permit, have detected perchlorate at the storm water sampling location in Happy Valley. See attached perchlorate sampling results from Boeing's "Perchlorate Source Evaluation and Technical Report" dated February 3, 2003. Since perchlorate has been detected in surficial soil samples obtained at the Building 359 and Happy Valley areas within Area I, DTSC is hereby requiring submittal of an interim measures workplan describing steps to be taken by Boeing to immediately control further releases from these areas to surface water. The Regional Board is in concurrence with this action. The workplan shall be submitted to DTSC no later than June 16, 2003.

The Regional Board considers the ongoing release of perchlorate to surface water a threat to water quality. DTSC is the lead agency for corrective action at the site

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our Web-site at www.dtsc.ca.gov.

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Mr. Steve Lafflam
May 21, 2003
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pursuant to Health and Safety Code Section 25187. Currently, there is no discharge limit for perchlorate under the existing NPDES permit; however, a new permit is being prepared by the Regional Board's staff for the Board's consideration at the August 7, 2003, public meeting. DTSC and the Regional Board staff will coordinate regulatory efforts to ensure protection of public health and the environment.

If you have any questions, please do not hesitate to call me at (916) 255-3574.

Sincerely,



James M. Pappas, P.E., Branch Chief
Northern California Permits and Corrective Action Branch

Attachment

cc: Regional Board Members
Art Lenox, The Boeing Company
David Bacharowski, California Regional Water Quality Control Board
Dennis Dickerson, California Regional Water Quality Control Board
Michael Lauffer, Office of the Chief Counsel, State Water Resources Control Board
The Honorable Steve Bennett, Ventura County Board of Supervisors
The Honorable John Flynn, Ventura County Board of Supervisors
The Honorable Kathy Long, Ventura County Board of Supervisors
The Honorable Judy Mikels, Ventura County Board of Supervisors
The Honorable Linda Parks, Ventura County Board of Supervisors
Dr. Lowell Preston, Ventura County Public Works Agency
Dan Hirsch, Committee to Bridge the Gap
Sharon Rubalcava, Weston Benshoof Rochefort Rubalcava MacCuish
Mary Wiesbrock, Save Open Spaces
Barbara Coler, Department of Toxic Substances Control, Berkeley
Pauline Batarseh, Department of Toxic Substances Control, Sacramento
Gerard Abrams, Department of Toxic Substances Control, Sacramento

Perchlorate in NPDES Surface Water Samples

The Boeing Company - Santa Susana Field Laboratory
 Perchlorate Data Summary: January 1998 - December 2002
 NPDES Outfalls 001 through 007, and Happy Valley

Date	Outfall							Happy Valley
	001	002	003	004	005	006	007	
1/9/1998	--	<0.0006	--	<0.0006	<0.0006	<0.0006	--	--
1/13/1998	<0.0006	--	--	--	--	--	--	--
1/19/1998	--	--	--	--	<0.0007	<0.0007	--	--
1/20/1998	--	<0.0007	--	--	--	--	--	--
1/29/1998	<0.0007	<0.0007	--	<0.0007	<0.0007	<0.0007	--	--
2/2/1998	--	--	<0.0007	--	--	--	<0.0007	--
2/6/1998	<0.0007	<0.0007	--	<0.0007	<0.0007	<0.0007	--	--
2/14/1998	--	--	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	--
2/16/1998	<0.0007	<0.0007	--	--	--	--	--	--
2/22/1998	--	--	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	--
2/24/1998	<0.0007	<0.0007	--	--	--	--	--	--
2/25/1998	<0.0007	<0.0007	--	<0.0007	<0.0007	<0.0007	--	--
3/6/1998	<0.0007	--	--	--	--	--	--	--
3/10/1998	--	<0.0007	--	--	--	--	--	--
3/14/1998	--	--	<0.0007	<0.0007	<0.0007	--	--	--
3/25/1998	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	--
4/6/1998	<0.0007	<0.0007	--	--	--	--	--	--
4/11/1998	--	--	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	--
5/5/1998	<0.004	<0.0007	<0.004	<0.004	<0.004	0.00426	<0.004	--
5/13/1998	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	--
6/11/1998	--	<0.004	--	--	--	--	--	--
7/15/1998	--	<0.004	--	--	--	--	--	--
8/6/1998	--	<0.004	--	--	--	--	--	--
9/1/1998	--	<0.004	--	--	--	--	--	--
10/5/1998	<0.004	--	--	--	--	--	--	--

Perchlorate in NPDES Surface Water Samples

The Boeing Company - Santa Susana Field Laboratory
 Perchlorate Data Summary: January 1998 - December 2002
 NPDES Outfalls 001 through 007, and Happy Valley

Date	Outfall							
	001	002	003	004	005	006	007	Happy Valley
10/6/1998	--	<0.004	--	--	--	--	--	--
11/8/1998	--	<0.004	--	--	--	--	--	--
11/29/1998	--	<0.004	--	--	--	--	--	--
11/30/1998	--	--	--	--	<0.004	--	--	--
12/21/1998	--	<0.004	--	--	--	--	--	--
1/6/1999	<0.004	--	--	--	--	--	--	--
1/19/1999	--	<0.004	--	--	--	--	--	--
1/20/1999	--	--	--	--	<0.004	--	--	--
2/1/1999	<0.004	--	--	--	--	--	--	--
2/5/1999	--	<0.004	--	--	<0.004	--	--	--
2/9/1999	--	<0.004	<0.004	<0.004	--	<0.004	<0.004	--
3/15/1999	--	--	--	<0.004	<0.004	--	--	--
3/25/1999	--	<0.004	<0.004	--	--	<0.004	<0.004	--
3/26/1999	<0.004	--	--	--	--	--	--	--
4/6/1999	--	--	--	--	<0.004	--	--	--
4/12/1999	<0.004	<0.004	<0.004	<0.004	--	<0.004	<0.004	--
5/6/1999	--	<0.004	--	--	--	--	--	--
5/11/1999	<0.004	--	--	--	--	--	--	--
5/25/1999	<0.004	--	--	--	--	--	--	--
6/4/1999	<0.004	--	--	--	--	--	--	--
6/9/1999	--	<0.004	--	--	--	--	--	--
7/15/1999	--	<0.004	--	--	--	--	--	--
8/9/1999	--	<0.004	--	--	--	--	--	--
9/9/1999	--	<0.004	--	--	--	--	--	--
10/8/1999	--	<0.004	--	--	--	--	--	--

Perchlorate in NPDES Surface Water Samples

The Boeing Company - Santa Susana Field Laboratory
 Perchlorate Data Summary: January 1998 - December 2002
 NPDES Outfalls 001 through 007, and Happy Valley

Date	Outfall							
	001	002	003	004	005	006	007	Happy Valley
11/8/1999	--	<0.004	--	--	<0.004	--	--	--
12/16/1999	--	<0.004	--	--	--	--	--	--
1/13/2000		<0.004	--	--	--	--	--	--
1/25/2000	<0.004	--	--	--	<0.004	--	--	--
1/31/2002	--	<0.004	--	--	--	--	--	--
2/10/2000	<0.004	<0.004	--	--	<0.004	--	--	--
2/21/2000	--	--	<0.004	<0.004	--	<0.004	<0.004	<0.004
2/23/2000	--	--	--	--	--	--	--	0.016
2/28/2000	<0.004	<0.004	--	--	--	--	--	--
3/5/2000	--	--	--	--	<0.004	--	--	0.013
3/6/2000	--	--	--	--	--	--	--	<0.004
3/8/2000	--	--	<0.500	<0.500	--	<0.500	<0.500	<0.004
3/9/2000	--	--	--	--	--	--	--	0.017
3/10/2000	--	--	--	--	--	--	--	<0.008
3/11/2000	--	--	--	--	--	--	--	0.0082
3/23/2000	--	<0.004	--	--	--	--	--	--
4/12/2000	--	<0.004	--	--	--	--	--	--
4/17/2000	--	--	<0.004	<0.004	<0.004	<0.004	<0.004	--
4/18/2000	<0.004	--	--	--	--	--	--	0.0094
5/15/2000	--	<0.004	--	--	--	--	--	--
5/17/2000	<0.004	--	--	--	--	--	--	--
6/14/2000	--	<0.004	--	--	--	--	--	--
7/6/2000	--	<0.004	--	--	--	--	--	--
8/2/2000	--	<0.004	--	--	--	--	--	--
9/8/2000	--	<0.004	--	--	--	--	--	--

Perchlorate in NPDES Surface Water Samples

The Boeing Company - Santa Susana Field Laboratory
 Perchlorate Data Summary: January 1998 - December 2002
 NPDES Outfalls 001 through 007, and Happy Valley

Date	Outfall							
	001	002	003	004	005	006	007	Happy Valley
10/4/2000	--	<0.004	--	--	--	--	--	--
10/27/2000	--	<0.004	--	--	--	--	--	--
11/13/2000	--	<0.004	--	--	--	--	--	--
12/6/2000	--	<0.004	--	--	--	--	--	--
1/11/2001	--	--	<0.004	<0.004	<0.004	<0.004	<0.004	--
1/12/2001	--	--	--	--	--	--	--	0.008
1/26/2001	--	--	<0.004	<0.004	<0.004	<0.004	<0.004	--
2/12/2001	--	--	<0.004	<0.004	<0.004	<0.004	<0.004	--
2/13/2001	--	--	--	--	--	--	--	0.0055
2/26/2001	--	--	--	--	--	--	--	0.0042
2/27/2001	--	--	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
3/5/2001	--	--	<0.004	<0.004	<0.004	<0.004	<0.004	0.0053
3/6/2001	--	--	--	--	--	--	--	<0.004
3/7/2001	--	--	--	--	--	--	--	0.0049
3/8/2001	--	--	--	--	--	--	--	0.0052
3/9/2001	--	--	--	--	--	--	--	0.0048
3/12/2001	--	--	--	--	--	--	--	<0.004
4/7/2001	--	--	--	--	--	<0.0022	--	--
11/13/2001	--	--	--	<0.004	<0.004	<0.004	--	--
11/29/2001	--	--	--	<0.004	<0.004	<0.004	--	--
12/14/2001	--	--	--	<0.004	<0.004	--	--	--
12/21/2001	--	--	--	--	--	<0.004	--	--
12/29/2001	--	--	<0.004	<0.004	<0.004	--	--	--
1/27/2002	--	--	<0.004	<0.004	<0.004	<0.004	--	--
2/17/2002	--	--	--	<0.004	<0.004	--	--	--

Perchlorate in NPDES Surface Water Samples

The Boeing Company - Santa Susana Field Laboratory
 Perchlorate Data Summary: January 1998 - December 2002
 NPDES Outfalls 001 through 007, and Happy Valley

Date	Outfall							
	001	002	003	004	005	006	007	Happy Valley
3/07/2002	--	--	--	<0.004	<0.004	--	--	--
5/20/2002	--	--	--	--	<0.004	--	--	--
11/8/2002	--	--	--	<0.004	<0.004	<0.004	--	--
12/16/2002	--	--	<0.004	<0.004	<0.004	<0.004	<0.004	--
12/17/2002	--	<0.004	--	--	--	--	--	--

Note: One additional surface water sample was collected on 2-10-99 from the drainage near Well 13 Road in Area II, at the request of the RWQCB. Perchlorate was not detected (<0.004 mg/L). This sample is reflected in sample count shown in Table 4-1.

All data in milligrams per liter (mg/L)

Bold indicates detected concentration

-- Not sampled/analyzed

Source: Published in Boeing NPDES monitoring reports (e.g., Boeing 2001).